

REMARKS

Claims 1, 2, 4-10, and 12-17 are pending. Claims 1 and 9 are amended. Applicant requests reexamination and reconsideration of the pending claims.

Rejection under 35 U.S.C. § 102(b) and § 103(a):

Claims 1, 2, 4, 7-10, 12 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuras et al. (USPN 5,698,316). Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuras et al. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuras et al. in view of Sankrithi (USPN 6,666,406). Applicant overcomes the rejections as follows.

Claim 1 sets forth, *inter alia*, “the plurality of electrically conductive splice plates directly electrically coupled to adjacent ones of the plurality of electrically conductive splice plates to form a continuous, electrically conductive grid disposed on the exterior surface of the aircraft body.”

Similarly Claim 9, sets forth, *inter alia*, a method including “directly electrically coupling adjacent ends of the conductive splice plates to each other to form a continuous, electrically conductive grid on the exterior surface of the aircraft body.” Applicant could find no disclosure in Kuras et al. that teaches or suggests Applicant’s invention as set forth in Claims 1 and 9.

As illustrated in FIG. 1 of the specification, the lightning damage protection system 100, in essence, comprises a “Faraday cage” (illustrated by the bold lines) defined on the exterior surface of the aircraft body by a continuous, electrically conductive “grid” disposed on the exterior surface of the aircraft body and extending to its outermost lateral periphery.

To prevent or minimize damage to a composite aircraft resulting from a lightning strike, it is necessary to connect the attachment and detachment points of the strike with a continuous, highly conductive path that is capable of carrying a momentary, high-density

electrical current without damage, such that the electrical current of the strike is substantially diverted through the conductive path, rather than through other portions of the aircraft that cannot tolerate such a current flow without damage.

As shown in FIG. 4 of the specification, the respective adjacent ends of the exterior splice plates 4 are electrically bonded to each other to form the continuous, conductive elements of the grid 100. The respective adjacent ends of the electrically conductive splice plates 4 are electrically coupled to each other by conductive fasteners 10, (represented by phantom centerlines thereof in Figs. 2 and 3), that extend through respective ones of the adjacent ends of the plates, and thence, through an electrically conductive bonding strap 12 that extends between the respective adjacent ends of the plates, as shown.

Applicant directs the Examiner attention to FIG. 2 in Kuras et al. (see Appendix A), which shows a first bridge 22 (labeled A) and a second bridge 22 (labeled B). It is disclosed that the bridges are to be used “across a gap between adjacent composite parts” to couple the shielding material embedded in the skin 14. However, the figure does not show nor could Applicant find disclosure that teaches or suggests directly electrically coupling adjacent ends of each bridge to other bridges to “form a continuous, electrically conductive grid on the exterior surface of the aircraft body.”

Accordingly, since the features of Claims 1 and 9 are not anticipated by Kuras et al., Claims 1 and 9 are allowable over the cited references. Applicant respectfully requests allowance of Claims 1 and 9.

Applicant reviewed the Sankrithi reference and determined that it fails to correct any of the deficiencies of Kuras et al. to make the claimed invention obvious.


Claims 2 and 4-8 depend from Claim 1 and are therefore allowable for at least the same reasons provided above with respect to Claim 1. Claims 10 and 12-17 depend from Claim 9 and are therefore allowable for at least the same reasons provided above with respect to Claim 9. Applicant respectfully requests allowance of Claims 2, 4-8, 10 and 12-17.

CONCLUSION

For the foregoing reasons, Claims 1, 2, 4-10 and 12-17 are allowable, and a notice of allowance is respectfully requested. If the Examiner has any questions regarding the application, the Examiner is invited to call the undersigned at 949-955-1920.

Respectfully submitted,

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